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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/043,497	01/11/2002	Michael Anthony Pugel	PU010223	9185

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EXAMINER

YIMAM, HARUN M

ART UNIT	PAPER NUMBER
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2623

DATE MAILED: 10/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/043,497

Applicant(s)

PUGEL ET AL.

Examiner

Harun M. Yimam

Art Unit

2623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 08/24/2006 have been fully considered but are moot in view of the new grounds of rejection.
2. In response to applicant's argument (page 5, 6th paragraph) that Vogel teaches a cable modem including a first and second filters connected in series, applicants should note that this setup is only an alternative. Vogel discloses that the input of said second filter (116 in figure 3) may be connected to the output of said tuner (108 in figure 3) thereby providing a parallel connection (column 9, line 65 – column 10, line 16), which reads on applicants claimed limitation.
3. In response to applicant's argument (page 5, 6th paragraph) that the second filter is not a filter for filtering a full bandwidth channel, applicants should note that said second filter (116 in figure 3) filters the output of the first filter (112 in figure 3) (column 9, lines 52-54). The first filter outputs a full bandwidth channel and although the second filter outputs just portion of said channel, it receives a full bandwidth channel for filtering. Therefore, the second filter, like the first filter, is adapted for filtering a full bandwidth channel between said tuner and said demodulator.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1, 2, 4, 6, 7 and 9 are rejected under 35 U.S.C. 102(e) as being anticipated by Vogel (US 6,804,262).

Considering claim 1, Vogel discloses in a multi-mode bi-directional communications (downstream and upstream communication—column 5, lines 30-55 and column 6, lines 40-64), an apparatus (cable modem—22 in figure 3) for processing received downstream data (column 5, lines 53-55) comprising: a tuner (108 in figure 3 and column 9, lines 34-42); a demodulator (114 in figure 3, column 5, lines 53-55 and column 10, lines 17-25); a first filter (112 in figure 3 and column 9, lines 48-51) adapted for selective coupling between the tuner and the demodulator (column 9, lines 55-60); and a second filter (116 in figure 3) adapted for selective coupling between the tuner and the demodulator (column 9, lines 55-60), wherein said first filter and said second filter are both adapted for filtering a full bandwidth channel between said tuner and said

demodulator (said second filter (116 in figure 3) filters the output of the first filter (112 in figure 3) (column 9, lines 52-54). The first filter outputs a full bandwidth channel and although the second filter outputs just portion of said channel, it receives a full bandwidth channel for filtering. Therefore, the second filter, like the first filter, is adapted for filtering a full bandwidth channel between said tuner and said demodulator—column 9, line 42 – column 10, line 48).

As for claim 2, Vogel discloses that the first filter has a bandwidth of 6 MHz (column 9, lines 45-51).

Regarding claim 4, Vogel discloses a selector for selectively coupling the first filter and the second filter between the tuner and the demodulator (110 in figure 3 and column 9, line 43 – column 10, line 25).

Considering claim 6, Vogel discloses that the downstream data is filtered to pass a data signal modulation frequency of greater than 88 MHz to the tuner (column 6, lines 25-39).

With regards to claim 7, Vogel discloses that the multi-mode bi-directional communications device is a cable modem (22 in figure 3, column 5, lines 53-55 and column 8, lines 36-59).

Considering claim 9, Vogel discloses that the first filter (112 in figure 3) is a surface acoustic wave (SAW) filter (column 9, lines 49-50).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 3 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vogel (US 6,804,262) in view of Uskali (US 2002/0157106).

With regards to claim 3, Vogel discloses that the first filter has a bandwidth of 6 MHz (column 9, lines 45-51). Vogel also discloses that the second filter changes the bandwidth of the first filter such that a second frequency selection system is defined (column 9, lines 55-68). Vogel further discloses that various modifications of the frequency selection system may be made and suggests that the second filter and the first filter may be connected in parallel rather than in series (column 10, lines 1-9).

Vogel fails to disclose that the second filter has a bandwidth of 8 MHz.

In analogous art, Uskali discloses that the second filter has a bandwidth of 8 MHz (paragraph 0022, lines 13-30).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Vogel's system to include a second filter with a bandwidth of 8 MHz, as taught by Uskali, for the benefit of implementing the multi-mode bi-directional communications device in both the United States and abroad.

Regarding claim 8, it is met by the combination of Vogel and Uskali. In particular, Uskali discloses that the apparatus supports multiple standards selected from the group consisting of the North American Data Over Cable Service Interface Specifications (DOCSIS) and the European DOCSIS standards (column 6, lines 6-13).

8. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vogel (US 6,804,262) in view of Atokawa (US 6,308,051).

Considering claim 5, Vogel discloses a selector comprising a switch for selectively coupling the first filter and the second filter between the tuner and the demodulator (110 in figure 3 and column 9, line 43 – column 10, line 25).

Vogel fails to disclose that the selector comprises a diode switch.

In analogous art, Atokawa discloses that the selector comprises a diode switch (D3 in figure 1 and column 5, lines 48-60).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Vogel's system to include a selector comprising a diode switch, as taught by Atokawa, for the benefit of providing different forms of selectors.

9. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vogel (US 6,804,262) in view of Widmer (US 6,169,569).

As for claim 10, Vogel discloses that the first filter (112 in figure 3) is a surface acoustic wave (SAW) filter (column 9, lines 49-50).

Vogel fails to disclose that the second filter is a surface acoustic wave (SAW) filter.

In analogous art, Widmer discloses that the second filter is a surface acoustic wave (SAW) filter.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Vogel's system to include that the second filter is a surface acoustic wave (SAW) filter, as taught by Widmer, for the benefit of providing significant advantages in performance, cost, and size over other filter technologies.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Harun M. Yimam whose telephone number is 571-272-7260. The examiner can normally be reached on M-F 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Grant can be reached on 571-272-7294. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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